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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,480	07/18/2003	Cory M. Panattoni	002558-068710US	4555
20350	7590	07/15/2004		
			EXAMINER	
			OLSEN, KAJ K	
			ART UNIT	PAPER NUMBER
			1753	

DATE MAILED: 07/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/623,480	PANATTONI, CORY M.
	<b>Examiner</b>	<b>Art Unit</b>
	Kaj K Olsen	1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-33 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All
  - b) Some \*
  - c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Double Patenting***

1. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

2. Claims 1, 6, 9, 10, 22 and 25 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1, 2, 5, 6, 15, and 18 of copending Application No. 10/346,681. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1-4, 7, 8, 11-21, 23-33 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3, 4, 7-14, 16, 17 and 19-26 of copending Application No. 10/346,681. Although the conflicting claims are

not identical, they are not patentably distinct from each other. With respect to claims 1-4 and 18-21 of the present invention, these claims differ from claims 1 and 14 of 10/346,681 in either not specifying a molecular weight range for the amphiphilic polymer or specifying a range that includes 100,000. However, claims 1 and 14 of 10/346,681 already set forth the use of “about 100,000” so it would have been obvious to utilize about 100,000 for the molecular weight for the present invention. With respect to claims 7, 8, 11-17 and 23-33 of the present invention, these claims overlap the analogous dependent claims from the 10/346,681 invention.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-14 and 18-30 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ogawa (USP 4,657,656).

7. Ogawa ‘656 discloses a method of manufacturing a pre-cast polyacrylamide slab gel that comprises placing a gel-forming liquid mixture in a gel enclosure defined by a pair of chemically inert (i.e. glass) plates, where the gel-forming mixture comprises acrylamide monomer, cross-linking agent, buffer, and a water soluble polymer such as polyethylene glycol and polyvinyl alcohol, and polymerizing the gel mixture. See abstract; col. 3, lines 16-32; col. 4, lines 60-68

and table I in col. 5. The present invention evidences that these polymers utilized by Ogawa ‘656 are inherently nonionic amphiphilic polymers (claims 8 and 11). Although Ogawa ‘656 does not explicitly set forth that the glass plates utilized are transparent, it presumably is because glass is conventional transparent and dye patterns can be observed through the glass (col. 5, lines 33-35). Alternatively, it would have been obvious to one of ordinary skill in the art at the time the invention was being made to utilize a transparent form of glass so that the gelation can be visually observed.

8. With respect to the claimed molecular weight, see table I and col. 3, lines 25-27. With respect to the claims molecular weights of claims 2-6, 9, 12, 19-22, 25 and 28, it appears that col. 3, lines 25-27 teaches those ranges with sufficient specificity to meet the claimed invention. In particular, Ogawa teaches the use of 800,000 (table I), which falls in the range of 100,000 to any of 8,000,000; 5,000,000; or 1,000,000. Alternatively, if the specified range of col. 3, lines 25-27 were interpreted as not meeting these limitations of “200 to about 20,000” with sufficient specificity, it would have been obvious to one of ordinary skill in the art at the time the invention was being made to utilize 200 to 20,000 molecular weight provided one desired a gel having viscosity on the lower end of the range (see col. 3, lines 38-41).

9. With respect to the claimed amount of nonionic amphiphilic polymer, see Ogawa ‘656, col. 3, lines 29-31. With respect to the particular claimed range of claims 9 and 22, although Ogawa ‘656 lower range point is 1%, Ogawa ‘656 is an improvement over a prior art that added no amphiphilic polymer to the gel. Hence, if one only wanted to add a small amount of elasticity to the gel and is willing to tolerate a degree of brittleness, one would have been motivated to utilized an even smaller amount of amphiphilic polymer in order to arrive at a gel having

properties that lie between the properties of the gels of Ogawa '656 and the prior art that preceded it.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 15-17 and 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogawa '656 in view of Moi et al (USP 5,938,906).

12. Ogawa '656 set forth all the limitations of the claims, but did not explicitly recite the use of plastic. Moi teaches in an alternate gel cast that plastics, including styrene-acrylonitrile copolymers, can be utilized instead of glass for the gel casts. See col. 5, lines 8-30. Plastics have an advantage over glass in that they allow the cassette to be locked together (col. 5, lines 28-30). In addition, plastics are lighter, easier to manufacture, and more resistant to shattering. It would have been obvious to one of ordinary skill in the art at the time the invention was being made to utilize the teaching of Moi for the method of gel of Ogawa '656 because plastics allow the cassette to be locked together, are lighter, easier to manufacture, and more resistant to shattering than glass cassette plates.

***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The other Ogawa references also teach the addition of a nonionic amphiphilic polymer to the gel similar to the teaching of Ogawa '656 discussed above. In addition, some of these teachings also add agarose to the gel.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaj Olsen whose telephone number is (571) 272-1344. The examiner can normally be reached on Monday through Thursday from 6:30 A.M. to 4:00 P.M. and on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen, can be reached on 571-272-1342. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kaj Olsen Ph.D.  
Primary Examiner  
AU 1753  
July 12, 2004